

REMARKS/ARGUMENTS

This application has been carefully reviewed in light of the Office Action dated January 9, 2008. Claims 1-25, 27, 29-33, and 35-40 are currently pending in the present application, with claims 1, 18, 24, 25, 29, 35, 39 and 40 being independent claims. Claims 18, 24, 25, 29, 32, 35, and 38 have been amended, claim 26 has been canceled, and claim 40 has been added, support for which can be found in, for example, currently pending claim 18 of the present application. No new matter is believed to have been introduced to the application by this amendment. Reconsideration and further examination are respectfully requested.

Claim Objections

Claims 25, 32, and 38 are objected to because of informalities. Applicants have amended the claims to address the informalities noted in the Office Action. Withdrawal of these claim objections is respectfully requested.

Claim Rejections – 35 USC § 103

Claims 1-8, 10-18, 20-25, and 27 are rejected under 35 USC § 103(a) as allegedly being unpatentable over U.S. Pat. No. 6,654,590 (“Boros”) in view of U.S. Pat. App. Pub. No. 2004/0095907 (“Agee”). Reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claims 1, 18 and 24

Independent claims 1, 18, and 24 include the features of forming a calibrated uplink channel and a calibrated downlink channel usable for peer-to-peer communications between first and second subscriber sets based on sets of correction factors determined based on estimates of downlink and uplink channel responses for the first and second subscriber sets. The applied references are not understood to teach or suggest at least these features of the claimed invention.

Boros is seen to teach calibrating a base station using a subscriber unit. *See*, Boros, col.14 ll.30-60 and col.19 ll.46-67. Contrary to the contention in the Office Action, Boros is not seen to teach or even suggest forming a calibrated uplink channel and a calibrated downlink

channel usable for peer-to-peer communications between a first subscriber set and a second subscriber set. In fact, as conceded in the Office Action, Boros fails to teach establishing any type of peer-to-peer communication between a first subscriber set and a second subscriber set, let alone one formed using calibrated uplink and downlink channels. Rather, the calibration described in Boros is seen to be limited to communication between a base station and a subscriber unit.

Agee, which was applied in combination with Boros, is not seen to disclose anything to remedy the noted deficiencies of Boros. The Office Action contended that Agee teaches a method for peer-to-peer communication between first and second sets of nodes in a wireless communication system. However, as conceded in the Office Action, Agee's disclosed method does not involve calibration on the transmit and receive channels. Therefore, Agee does not disclose or even suggest forming calibrated uplink and downlink channels for peer-to-peer communications between first and second subscriber sets. Nor does Agee provide any suggestion or motivation to modify the teachings of Boros to form calibrated uplink and downlink channels for peer-to-peer communications between first and second subscriber sets.

Accordingly, the applied references, either along or in combination, are not understood to teach or suggest at least the features of forming a calibrated uplink channel and a calibrated downlink channel usable for peer-to-peer communications between first and second subscriber sets based on sets of correction factors determined based on estimates of downlink and uplink channel responses for the first and second subscriber sets. Therefore, for at least these reasons, independent claims 1, 18, and 24 are believed to be allowable over the art of record.

Dependent Claims

The other claims in the application ultimately depend from one of independent claims 1, 18 or 24, discussed above, and therefore are believed to be allowable over the art of record for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, the individual consideration of each on its own merits is respectfully requested.

Allowable Subject Matter

Applicants thank the Examiner for the indication that claims 9, 19, and 26 would be

allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants submit that claim 8 should also be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims if claim 19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as both recite similar allowable subject matter. Specifically, claim 19 recites “the first and second sets of correction factors are determined based on a minimum mean square error (MMSE) computation.” Claim 8, which the Examiner did not indicate would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, recites “the matrices $\hat{\mathbf{K}}_{ut}$ and $\hat{\mathbf{K}}_{up}$ are derived based on a minimum mean square error (MMSE) computation,” and, according to claim 4, from which claim 8 depends, “ $\hat{\mathbf{K}}_{up}$ is a matrix for the first set of correction factors [and] $\hat{\mathbf{K}}_{ut}$ is a matrix for the second set of correction factors.” Consequently, Applicants respectfully submit that, for at least the same reasons as claim 19, claim 8 should be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have rewritten claim 25 to incorporate the allowable subject matter of claim 26, now canceled. Applicants respectfully submit that claim 25 is in condition for allowance.

Applicants have not rewritten claims 9 and 19 in independent form at this time since the base claims from which they depend are believed to be allowable over the art of record, as discussed above.

CONCLUSION

Therefore, for at least the reasons presented above with respect to all of the pending claims subsequent to entry of this response, Applicants assert that all claims are patentably distinct from all of the art of record. All objections and rejections having been addressed, it is respectfully submitted that this application is in condition for allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Charge Statement: For this application, the Commissioner is hereby authorized to charge any required fees or credit any overpayment to Deposit Account 17-0026.

Respectfully submitted,
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